

## SYSTEM AND METHOD FOR PRESENTING MULTIPLE TRANSACTION OPTIONS IN A PORTABLE DEVICE

### TECHNICAL FIELD OF THE INVENTION

**[0001]** The present invention relates to systems and methods for using a portable device for conducting a transaction with a transaction system of a merchant or other receiving entity and, in particular, systems and methods for presenting multiple transaction options for user selection.

### DESCRIPTION OF THE RELATED ART

**[0002]** Payment for goods or services at a merchant's point of sale system typically involves the customer paying cash, writing a check, or paying by some form of electronic payment transaction such as a credit or charge card "signature" transaction or some form of a debit transaction such as a debit of a traditional checking account or a debit of a pre-paid spending account such as the EDY mobile payment service that has become very popular in Japan.

**[0003]** Traditionally a customer desiring to pay by some form of electronic payment transaction presents a card representing the transaction account to the merchant. The card provides account information needed for initiating the electronic payment transaction and provides some security in that the card's physical presence in the custody of the customer is some circumstantial evidence that the customer is authorized to initiate payment transactions on the account. In some cases, a personal identification number (PIN) is required for further evidence of authorization.

**[0004]** Further, if the customer desires to associate the transaction with an affinity, membership, or other type of discount, loyalty, or similar program, the customer traditionally provides the applicable account information to the merchant in the form of a card which again provides some circumstantial evidence that the customer is authorized to use such account. Typically this is performed before initiating the payment transaction.

**[0005]** Further yet, if the customer desires to apply a coupon to the transaction, the customer traditionally provides a paper coupon to the merchant and the merchant initiates a coupon transaction for adjusting the amount due. Coupon transactions are typically initiated before the payment transaction.

**[0006]** More recently it has been proposed to enable a portable device, such as a mobile telephone, PDA, or other portable electronic device, to function as an "electronic wallet" which stores the account information for each of a plurality of transaction accounts.

**[0007]** To make an electronic payment from a transaction account for which account information is stored and managed by an electronic wallet application, the user of the device initiates the electronic wallet application, selects a transaction account from the plurality of transaction accounts managed by the electronic wallet application, and authorizes the payment. The electronic wallet application then receives transaction-related information from the merchant and supplies the account-related information necessary to complete the transaction to the merchant. While this exchange can be done in various ways, Near Field Communication (NFC) technology is an exemplary technology that can be used for secure contact-less exchange of the transaction information.

**[0008]** As electronic payments using mobile devices become more common, it is expected that individuals will have multiple payment means in their electronic wallets just as individuals currently carry multiple credit, debit, ATM, or other cards in their physical wallets today. The anticipated difficulty of navigating multiple, and layered, menus in a traditional manner using a limited user interface (e.g., limited key board, limited display size, and limited display resolution) of a portable device such as a mobile telephone, PDA, or similar creates a usability challenge which could inhibit consumer adoption and usage of mobile electronic payments. This usability challenge is further exacerbated when additional transaction options such as electronic coupons and/or accounts representing affinity, membership, or other types of discount, loyalty, or similar programs are added to the portable device.

**[0009]** What is needed is a system and method for operating a portable device such as a mobile telephone, PDA, or similar mobile device in a manner that does not suffer the disadvantages of known systems. In more detail, what is needed is a system and method for presenting multiple transaction options on a portable device and facilitating user selection of a one or more of the multiple transaction options in an easy and convenient manner.

### SUMMARY

**[0010]** A first aspect of the present invention comprises a portable device for conducting a transaction from an account associated with the portable device. The portable device comprises a user interface, a memory storing account information for each of a plurality of accounts, a transaction application, and power management circuitry. The portable device further comprises a communication system, such as a Near-Field Communication (NFC) system, for communicating with a transaction system of a merchant or other receiving entity.

**[0011]** Each account may be one of: i) a payment account such-as credit or charge "signature" transaction account or a debit account such as checking account or EDY; ii) an alternative payment transaction account such as PayPal®; iii) a program account representing an affinity, membership, or other type of discount, loyalty, or similar program; and iv) an electronic coupon.

**[0012]** The transaction application applies at least one predetermined selection rule to the plurality of accounts to determine a selected subset of the plurality of accounts. A display of the user interface displays, under control of the transaction application, a plurality of transaction option indicators. Each transaction option indicator, which may be text or graphic, represents a one of the accounts within the selected subset of accounts.

**[0013]** The transaction application prompts user selection of a selected one (or at least one) of the transaction option indicators. User selection may be by use of a first and second button on an outside of the housing of the portable device for scrolling a highlight bar over a sequence of the transaction option indicators and use of third button on the housing for selecting a one of the transaction option indicators. The first and the second button may be paired keys such as volume buttons. The third button may be an additional key such as a photo or camera button.

**[0014]** Alternatively, user selection may be use of a thumbwheel on an outside of the housing of the portable device (such as a volume control thumbwheel) for scrolling a